ABSTRACT OF DISCLOSURE

The microprocessor is provided with a program modification function not attended with unnecessary branch instructions or interrupt processes. The instruction storage unit includes ROM for storing instructions composing a program to be processed and a modified instruction storage unit for storing modified instructions for program modification. When the upper bits of an instruction address supplied from the program counter match with the upper bits of the modifying address, the address translation unit translates the upper bits of the instruction address into the upper bits of the substitutive address where the modified instruction is storage unit.